50 km², and squirrels hunted in mature forest are their main prey. However, European goshawks are most abundant in temperate areas with fragmented forest. Breeding densities reach 10 pairs per 100 km² in areas with less than 20% woodland, and home ranges are typically 5–20 km². Diet features thrushes and corvids in summer, but in winter goshawks hunt primarily along woodland edges. Where land use has favored rabbits, hares, game birds and pigeons, these dominate goshawk winter diet, sometimes causing conflict with human interests. Goshawks now have few natural predators in these habitats, so it is uncertain how much their present abundance reflects scarcity of other large raptors, especially eagle owls (*Bubo bubo*).

On the Breeding Success of the Osprey in Germany: Comparison Between Tree Nesters and Nesters on Power Lines

MEYBURG, B.-U. Wangenheimstr. 32, 14193 Berlin, Germany. O. MANOWSKY. Schönebecker Str. 12, 16247 Joachimsthal, Germany. C. MEYBURG. Wangenheimstr. 32, 14193 Berlin, Germany

As a regular breeding species in central Europe the osprey (Pandion haliaetus) is today confined to the Federal States of Mecklenburg-Vorpommern and Brandenburg in eastern Germany and the former German areas in Poland. In Mecklenburg the population reached its lowest level in the DDT period between 1968 and 1972. A slow but steady increase has occurred ever since, in Brandenburg from ca. 45-50 pairs in the early 1980s to over 120 pairs today. One important limiting factor has been the scarcity of suitable trees for nesting since the species prefers the top of isolated old trees or trees on the edge of the forest dominating the surrounding trees. Due to forestry such trees have become increasingly rare to the point that no substantial population could presently reproduce in the traditional way. Fortunately ospreys started as early as 1938 to breed on power lines where the nests are safer than in trees. Presently the majority of ospreys nest on these artificial structures in Germany, while in Poland no such breeding is known. We studied the breeding success of 9-13 tree-nesting and several dozen power-line-nesting pairs for the last 20 yr and compare our findings with data in the literature from Germany and Poland.

CONSERVATION OF WEDGE-TAILED EAGLES AND GREY GOSHAWKS IN TASMANIA: A COMPARISON OF EXTREMES

MOONEY, N. AND R. GAFFNEY. Parks and Wildlife, GPO Box 44A, Hobart 7001 Australia. R. BRERETON. Forestry Commission, 30 Patrich Street, Hobart 7000, Australia

Both the wedge-tailed eagle (Aquila audax) and the grey goshawk (Accipiter novaehollandiae) have small (less than 180 pairs), resident populations in Tasmania which are threatened by loss of breeding habitat and persecution.

Eagles use traditional nests and are widely distributed at low densities in direct contrast to goshawks. Both populations are insufficiently protected in state reserves. Less than 10% of eagle nests are in riparian areas and therefore protected by stream-side reserves under the Forest Practices Code. To conserve a viable population of eagles, special prescriptions for nests by nest conservation have been implemented. These are standard in state forests but some aspects are negotiable on private land in an effort to promote goodwill and personal responsibility. In most of their range, goshawks nest in riparian habitat and are therefore protected from logging, but the optimal habitat is swamp forest where special Wildlife Priority Areas will have to be established away from streams. The riparian preference of the hawks makes them vulnerable to unregulated clearing for agriculture but they are less disrupted by forced moves in nesting sites. Foraging habitat is adequate for eagles but the highly dimorphic, forest-specialist goshawk may require additional protection of wet forest Local densities of both species and breeding distribution of goshawks is limited by persecution. Elevation of the effects of persecution is by legal protection, public education and peer pressure, rehabilitation, protection of stock by caging and proximity to people, scaring and occasional capture for relocation or replacement.

EUROPEAN SPARROWHAWKS IN CONIFER PLANTATIONS

NEWTON, I. Institute of Terrestrial Ecology, Monks Wood, Abbots Ripton, Huntingdon, Cambs PE17 2LS, U.K.

The aim was to find how sparrowhawk (Accipiter nisus) numbers and breeding success varied with the age and management of conifer monocultures, which form the main nesting habitat available to the species in parts of western Europe. In south Scotland sparrowhawks occupied such plantations after they had been thinned for the first time at about 20 yr after planting. For about the next 10 yr, occupancy of territories and nest success was high, but declined as the plantations matured. The birds continually moved from older to younger plantations as they became available. To maintain maximum sparrowhawk populations in this area, the plantations should ideally be managed on a 35–40 yr rotation, but in a staggered manner, so as to ensure at any one time equal proportions of plantation in the 1–10, 11–20, 21–30 and 31–40 yr age classes.

URBAN ECOLOGY OF MISSISSIPPI KITES

PARKER, J.W. Aerie East, R.R. 3, Box 3110, Farmington, ME 04938 U.S.A.

The Mississippi kite (Ictinia mississippiensis) is the most abundant urban raptor in North America, and possibly in existence. My studies of this species since 1968, and other recent studies of lesser extent, indicate that its choice of food, and foraging/nesting habitats suit it for urban existence. Its life history characteristics, however, do not